

Appl. No. 10/807,099
Amdt. dated 19 July 2005
Reply to Office Action of 13 May 2005

REMARKS/ARGUMENTS

The Office Action of 13 May 2005 stated that Claims 2-7 were rejected because of certain enumerated informalities. Claims 2-7 were rejected under 35 U.S.C. § 112, 2nd paragraph. Claims 1, 5, & 7 were rejected under 35 U.S.C. § 102(e) as anticipated by Sotoyama and Claims 1-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Jarikov. Applicants respectfully traverse each objection to the specification and each rejection of the claims.

Applicants acknowledge and thank the Examiner for the acceptance of the drawings filed on 23 March 2004. Applicants note a typographical error in Jianmin Shi's first name that does not appear in the application papers as originally filed or in the assignment documents. Applicants request correction.

Claims 1-11 remain in this application. Claims 1-7 and 11 have been amended to correct informalities and more clearly specify the invention.

Claims 2-7 were rejected because of certain enumerated informalities. Amendment is made to these claims to correct any "informalities".

Claims 2-7 were rejected under 35 U.S.C. § 112, 2nd paragraph. Specifically, the phrase "can be" was rejected as indefinite in Claims 2-7 and, in addition, the phrase "other heterocyclic systems" was rejected as indefinite in Claim 4. Amendment is made to the enumerated Claims that Applicants believe obviate any indefinites.

Claims 1, 5, & 7 were rejected under 35 U.S.C. § 102(e) as anticipated by Sotoyama. Applicants note that the rejection is based on the Sotoyama patent application that published March 3, 2005. Applicants filed March 23, 2004, about one year earlier than the publication date of this reference. Applicants assume that the Examiner is relying on the March 17, 2004 filing date of the Sotoyama reference that is six (6) days prior to Applicants filing date. The Office can not rely on the priority document Sotoyama until such time as it is shown that the subject matter is supported in the priority document. Further, Sotoyama claims the use of anthanthrene derivative with an arylamino group in EL devices. Claims 1, 5 & 7 of the instant patent application are amended to include the statement. " R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} and R^{12} is not

Appl. No. 10/807,099
Amdt. dated 19 July 2005
Reply to Office Action of 13 May 2005

an arylamino group". The examples 17 and 18 and Fig. 4 and 5 in the instant application show the application of anthanthrene derivatives with a non-arylamino group for EL devices, which is consistent with the amended claim. Therefore the rejection of these claims as anticipated by Sotoyama is moot.

Claims 1-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Jarikov. Jarikov is another published patent application that published after the filing date of Applicants' Application. The filing date of the Jarikov Application was August 5, 2003. Claim 1 d, i) of the Jarikov patent states "the first compound of the mixture is an organic compound that is transporting either electrons or holes or both and is capable of forming both a monomer and an aggregate state and further is capable of an aggregate state either in the ground electronic state or in the excited electronic state." In Claim 88, pg 82, Jarikov cites the anthanthrene derivatives with the claim "the organic light device of claim 1 wherein the first component of the mixture is a benzenoid compound that has the formula (anthranthrene)".

Jarikov teaches the use of anthantherene molecules as the first component of an aggregate used to improve the transport electrons or holes or both. Based on fundamental principals, molecular aggregates will not emit light because of self-quenching.

In contrast, the light emitting molecules of the instant invention is anthanthrene that is intentionally doped into a host matrix to prevent aggregation. Further, the individual substituents, R, of the instant invention are designed to further reduce aggregation. Jarikov does not teach the use of anthanthrene derivatives as the light emitting component of an organic light emitting device which is the teaching and claim of the instant application. Further, Jarikov does not teach the use of the anthanthrene derivatives for use in a EL device as a non-aggregate compound. The examples in Jarikov do not teach or claim the use of the cited compounds as the light emitting component of an organic light emitting device.


By comparison, our patent examples 17 and 18 and Fig. 4 and 5 show the use of anthanthrene derivatives as the light emitting component of an organic light emitting device. Thus, our patent applications teaches a fundamentally different use for the anthranerene derivative compounds as compared to the Jarikov patent and Jarikov does

Appl. No. 10/807,099
Amdt. dated 19 July 2005
Reply to Office Action of 13 May 2005

not render the instant invention obvious. The rejection of Claims 1-11 should be withdrawn as not founded in fact.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. The Director is hereby authorized to charge any additional fees or underpayments under 37 C.F.R. § 1.16 & 1.17; and credit any overpayments to Deposit Account No. 19-2201 held in the name of U.S. Army Materiel Command.

Respectfully submitted,
Intellectual Property Counsel
U.S. Army Research Laboratory

By 

A. David Spevack
Reg. No. 24,743
Tel.: 301-394-1714
FAX: 301-394-3972
e-mail: dave.spevack@us.army.mil

ATTN: AMSRD-ARL-0-CC-IP
2800 Powder Mill Road
Adelphi, Maryland 20783-1197

Certificate of Transmission under 37 CFR § 1.8

I hereby certify that the above AMENDMENT is being facsimile transmitted to Phone No. 571-273-8300 at the United States Patent & Trademark Office on Tuesday, July 26, 2005.



A. David Spevack
Reg. No. 24,743
301-394-1714